## **Abstract of the Disclosure**

A carrier pre-encoded with information sufficient to distinguish it from a heterogeneous population of carriers is disclosed on which a compound can be synthesized. The carrier has two attributes integrally associated therewith, which attributes are detectable and/or quantifiable during synthesis of the compound and which define a code identifying the carrier before, during and after said synthesis, with the proviso that one of said attributes is other than shape, or surface deformation(s) of the carrier. The invention also encompasses a plurality of carriers that are pre-encoded as above and a method of synthesizing and deconvoluting a combinatorial library using such carriers.